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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,212	07/13/2001	Venkatraman Ramakrishnan	26505-511	3863
30623	7590	06/28/2006	EXAMINER	
MINTZ, LEVIN, COHN, FERRIS, GLOVSKY AND POPEO, P.C. ONE FINANCIAL CENTER BOSTON, MA 02111			TALAVERA, MIGUEL A	
			ART UNIT	PAPER NUMBER
			1656	

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/905,212	RAMAKRISHNAN ET AL.	
	<b>Examiner</b> Miguel A. Talavera	<b>Art Unit</b> 1656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 11 April 2006.  
 2a) This action is **FINAL**.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-4 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-4 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date: _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date: _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

## **DETAILED ACTION**

### ***Application Status***

1. In response to the previous Office action (mailed on January 13, 2006), Applicants filed a response and amendment received on April 11, 2006.
2. Claims 1-4 are pending in the application.
3. Applicant's amendment to the claims, filed on 04/11/06, replaces all prior versions and listings of the claims. Said amendment amended claims 1-4 and cancelled claims 5, 12 and 13.
4. Claims 1-4 are being examined on the merits.
5. Applicant's amendment to the specification, filed on 04/11/06, is acknowledged.
6. Applicant's arguments filed on 04/11/06 have been fully considered. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn.
7. The text of those sections of Title 35 U.S. Code not included in the instant action can be found in a prior Office action.

### ***Objections to the Specification***

8. Previous objections to the specification are withdrawn in view of the amendment to the specification that inserts a new title and abstract.

***Claim Objections***

9. Claim 1 is objected to in the recitation of “tables 1 to 4” as the specification indicates that instead of a Table 1, there is Table 1A, 1B, and 1C (p. 7, lines 17-26). It is suggested that applicant replace “tables 1 to 4” with “tables 1A, 1B, 1C, 2, 3, or 4.”

***Claim Rejections - 35 U.S.C. § 112***

10. Previous rejection of claim 12 as being indefinite for the recitation of “having a resolution of at least about 3 Å”, is withdrawn in view of the amendment to the claims that cancelled claim 12.

***Claim Rejections - 35 U.S.C. § 112, first paragraph***

11. Previous rejections of claims 12 and 13 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement, are withdrawn in view of the amendment to the claims that cancelled claims 12 and 13.

12. Previous rejections of claims 1-4 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement, are maintained for the reasons of record.

***13. Response to Arguments***

Applicant has amended claim 1 to recite that the crystals are from *Thermus thermophilus* and are defined by the coordinates of a table selected from the group of tables 1 to 4. Claims 2-4 have been amended to depend from claim 1. Applicant submits that in view of amendments to the claims, the rejections have been overcome.

The examiner respectfully disagrees. While the claims have limited the organism from which the crystallized macromolecular complex was obtained, applicants are not in possession of

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crystals containing a 30S ribosomal subunit. Applicants are directed to arguments of record, specifically, to page 6 of the Office Action, mailed on 01/13/06, where it states:

“To clarify the record, it is noted that the specification does not actually disclose any whole 30S ribosomal subunit as defined by the small ribosomal components recognized in the art:

“In prokaryotes, the small (30S) subunit consists of a single RNA about 1500 nucleotides long (16S rRNA) and single copies of each about 20 different protein molecules (3).” (see Moore, page 3243)”

As evidenced by Moore, said subunits consist of 20 different proteins, namely S1-S20, and the specification only discloses crystals of a 30S-like ribosomal subunit lacking protein S1 (see specification, page 23, lines 30-31), which does not represent an art recognized, naturally occurring prokaryotic 30S ribosomal subunit.

While the specification describes isolation of a 30S-like ribosomal subunit, crystal, space group, unit cell dimensions and X-ray crystallographic analysis leading to the structural coordinates a *Thermus thermophilus* 30S-like ribosomal subunit bound to paromomycin as shown in Tables 1A-1C, this disclosed species fails to represent a crystal of any prokaryotic 30S ribosomal subunit as encompassed by the claims.”

Applicants have only shown possession of crystals containing a 30S-like ribosomal subunit that lacks protein S1. Thus, the rejection remains for reasons of record.

14. Previous rejections of claims 12 and 13 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement, are withdrawn in view of the amendment to the claims that cancelled claims 12 and 13.

15. Previous rejections of claims 1-4 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement, are mantained for the reasons of record.

**16. *Response to Arguments***

Applicant has amended claim 1 to recite that the crystals are from *Thermus thermophilus* and are defined by the coordinates of a table selected from the group of tables 1 to 4. Claims 2-4 have been amended to depend from claim 1. Applicant submits that in view of amendments to the claims, the rejections have been overcome.

The examiner respectfully disagrees. The rejection was fully explained in the previous office action. At hand, the issue is whether the specification has enabled making and using crystals containing a “30S ribosomal subunit”. Applicant is directed to p 13, 17 and 21 of previous office action in where the amount of direction provided by the inventor and the existence of working examples are discussed. While applicant is enable for crystals containing a 30S-like ribosomal subunit that lacks protein S1, the specification fails to enable crystals containing a “30S ribosomal subunit”. Thus, at least for the reasons of record the rejections remain.

***Conclusion***

17. Rejections of claims 1-4 under 35 U.S.C. § 112, first paragraph are maintained for the reasons of record.
18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miguel A. Talavera whose telephone number is (571)272-3354. The examiner can normally be reached on M-F, 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathleen M. Kerr can be reached on (571)272-0931. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DAVID J. STEADMAN, PH.D.  
PRIMARY EXAMINER

Miguel A. Talavera, Ph.D.

June 22, 2006